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10656478 - GALL 2624

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STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10656478
Filing Date	2003-09-05
First Named Inventor	Hassan MOSTAFAVI
Art Unit	2624
Examiner Name	Andrae S. Allison
Attorney Docket Number	VM 03-009-US

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	1	3861807		1975-01-25	Lescrenier	
	2	3871360		1975-03-18	Van Horn et al.	
	3	4031884		1997-06-28	Henzel	
	4	4262306		1981-04-14	Renner	
	5	4463425		1984-07-31	Hirano et al.	
	6	4710717		1987-12-01	Pelc et al.	
	7	4853771		1989-08-01	Witriol et al.	
	8	4895160		1990-01-23	Reents	

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	9	4971065		1990-11-20	Pearce	
	10	4994965		1991-02-19	Crawford et al.	
	11	5262945		1993-11-16	DeCarli et al.	
	12	5265142		1993-11-23	Hsieh	
	13	5279309		1994-01-18	Taylor et al.	
	14	5295483		1994-03-22	Nowacki et al.	
	15	5315630		1994-05-24	Sturm et al.	
	16	5363844		1994-11-15	Riederer et al.	
	17	5389101		1994-02-14	Heilbrun et al.	
	18	5394875		1995-03-07	Lewis et al.	
	19	5396875		1995-03-14	Kotwicki et al.	

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	20	5446548		1995-08-25	Gerig et al.	
	21	5448548		1995-09-05	Taneya et al.	
	22	5482042		1996-01-09	Fujita	
	23	5513646		1996-05-07	Lehrman et al.	
	24	5531520		1996-07-02	Grimson et al.	
	25	5538494		1996-07-23	Matsuda	
	26	5565777		1996-10-15	Kanayama et al.	
	27	5582182		1996-12-10	Hillsman	
	28	5588430		1996-12-31	Bova et al.	
	29	5603318		1997-02-18	Heilbrun et al.	
	30	5619995		1997-04-15	Lobodzinski	

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	31	5622187		1997-04-22	Carol	
	32	5638819		1997-06-17	Manwaring et al.	
	33	5662111		1997-09-02	Cosman	
	34	5662112		1997-09-02	Heid	
	35	5727554		1998-03-17	Kalend et al.	
	36	5764723		1998-06-09	Weinberger et al.	
	37	5771310		1998-06-23	Vannah	
	38	5784431		1998-07-21	Kalend et al.	
	39	5794621		1998-08-18	Hogan et al.	
	40	5820553		1998-10-13	Hughes	
	41	5823192		1998-10-20	Kalend et al.	

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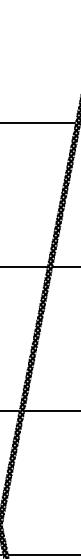
	42	5836954		1998-11-17	Heilbrun et al.	
	43	5891034		1999-04-06	Bucholz	
	44	5906202		1999-05-25	Schuster et al.	
	45	5912656		1999-06-15	Tham et al.	
	46	5954647		1999-09-21	Bova et al.	
	47	5993397		1999-11-30	Branson	
	48	5997883		1999-12-07	Epstein et al.	
	49	6061644		2000-05-09	Leis	
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	1	4341324	DE	A1	1995-06-08	Siemens AG	
	2	79458	FI		1989-09-29	Seppo Peltola	
	3	9816151	WO		1998-04-23	The Trustees of Columbia U. in the City of NY	
	4	9838908	WO		1998-09-11	Schneider Medical Technologies, Inc.	
	5	9852635	WO		1998-11-26	William Beaumont Hospital	
	6	19856467	DE		2000-05-31	Stuschke et al.	
	7	02085455	WO		2002-10-31	Dyn'r	
	8	0024333	WO		2000-05-04	Varian Medical Systems, Inc.	

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	9	9830977	WO		1998-07-16	Qualisys AB		<input type="checkbox"/>
	10	2002090118	JP		2002-03-27	Olympus Optical Co. Ltd.		<input type="checkbox"/>
	11	2000262511	JP		2000-09-26	Toshiba Iyo system Engineering KK Toshiba Corp.		<input type="checkbox"/>
	12	2000325339	JP		2000-11-28	GE Yokogawa Medical Systems Ltd.		<input type="checkbox"/>
	13	03003796	WO		2003-01-09	Varian Medical Systems, Inc.		<input type="checkbox"/>
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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T5
	1	ADAMS, W.B. et al. "Correlator Compensation Requirements for Passive Time-Delay Estimation with Moving Source or Receivers" IEEE (April, 1980) ASSP-28(2):158-168.	<input type="checkbox"/>
	2	AHLSTROM, K.H. et al. "Pulmonary MR Angiography with Ultrasmall Superparamagnetic Iron Oxide Particles as a Blood Pool Agent and a Navigator Echo for Respiratory Gating: Pilot Study" Radiology (June 1999) 211(3):865-869.	<input type="checkbox"/>
	3	AXEL, L. et al. "Respiratory Effects in Two-Dimensional Fourier Transform MR Imaging" Radiology (Sept. 1986) 160 (3):795-801.	<input type="checkbox"/>

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	4	BALTER, J.M. et al.; "Uncertainties In CT-Based Radiation Therapy Treatment Planning Associated With Patient Breathing"; Int. J. Radial. Oncol.. Bioi., Phys. 36; pp. 167-174 (August 1996).	<input type="checkbox"/>
	5	BANKMAN, I.N. et al. "Optimal Detection, Classification, and Superposition Resolution in Neural Waveform Recordings" IEEE) August, 1993) 40(8):836-841).	<input type="checkbox"/>
	6	BARONI, G. and G. Ferrigno "Real-time Motion Analysis for Definition and Control of Patient Position in Radiotherapy" SPIE 0-81942084-0/96 2709:506-515.	<input type="checkbox"/>
	7	BELLENGER, N.G. et al.; "Left Ventricular Quantification In Heart Failure By Cardiovascular MR Using Prospective OS Respiratory Navigator Gating: Comparison With Breath-Hold Acquisition"; J. Magn. Reson. Imaging 11; pp. 411- 417; (April 2000).	<input type="checkbox"/>
	8	CHO, K. et al.; "Development Of Respiratory Gated Myocardial SPECT System", J. Nucl. Cardiol. 6; pp. 20-28; (Jan. IFeb. 1999).	<input type="checkbox"/>
	9	DANIAS, P.G. et al. "Prospective Navigator Correction of Image Position for Coronary MR Angiography" Radiology (June 1997) 203:733-736.	<input type="checkbox"/>
	10	DAVIES, S.C. et al.; "Ultrasound Quantitation Of Respiratory Organ Motion in The Upper Abdomen"; Br. J. Radiol. 67; pp. 1096-1102 (November 1994).	<input type="checkbox"/>
	11	DU, Y.P. "Prospective navigator gating with a dual acceptance window technique to reduce respiratory motion artifacts in 3D MR coronary angiography" Int'l J. Cardiovascular Imaging (2003) 19:157-162.	<input type="checkbox"/>
	12	DU, Y.P. et al. "A comparison of prospective and retrospective respiratory navigator gating in 3D MR coronary angiography" Int'l J. Cardiovascular Imaging (2001) 17:287-294.	<input type="checkbox"/>
	13	EHMAN, R.L. et al.; "Magnetic Resonance Imaging With Respiratory Gating: Techniques and Advantages"; Am. J. Roenlgenol143; pp. 1175-1182 (December 1984).	<input type="checkbox"/>
	14	FEE, M.S. et al. "Automatic Sorting of Multiple Unit Neuronal Signals in the Presence of Anisotropic and non-Gaussian Variability" J. Neuroscience Methods (1996) 69:175-188.	<input type="checkbox"/>

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	15	FELBLINGER, J. et al. "Effects of physiologic motion of the human brain upon quantitative H-MRS: analysis and correction by retrogating" NMR in Biomedicine (1998) 11:107-114.	<input type="checkbox"/>
	16	FISHBEIN, K.W. et al. "The lever-coil: A simple, inexpensive sensor for respiratory and cardiac motion in MRI experiments" Magnetic Resonance Imaging (2001) 19:881-889.	<input type="checkbox"/>
	17	FROLICH, H. et al.; "A Simple Device For Breath-Level Monitoring During CT"; Radiology 156; p. 235 (July 1985).	<input type="checkbox"/>
	18	GERIG, L.H. et al. "The Development and Clinical Application of a Patient Position Monitoring System" Ottawa Regional Cancer Centre, General Division, 501 Smyth Rd., Ottawa, Ontario, Canada K1H8L6; National Research Council, IIT, Ottawa, Ontario, Canada K1A 0R6; SpIE Videometrics III (1994) 2350:59-72.	<input type="checkbox"/>
	19	HAACKE, E.M. and G.W. Lenz "Improving MR Image Quality in the Presence of Motion by Using Rephasing Gradients" AJR (June 1987) 148:1251-1258.	<input type="checkbox"/>
	20	HANLEY, J. et al.; "Deep Inspiration Breath-Hold Technique For Lung Tumors: The Potential Value of Target CS Immobilization And Reduced Lung Density In Dose Escalation"; Int. J. Radial. Oncol., Biol. Phys. 45; pp. 603-611 (October 1999).	<input type="checkbox"/>
	21	HENKELMAN, R.M. et al.; "How Important Is Breathing In Radiation Therapy Of The Thorax?"; Int. J. Radiat. Onco/., Bioi., Phys. 8; pp. 2005-2010 (November 1982).	<input type="checkbox"/>
	22	HOFMAN, M.B.M. et al.; "MRI Of Coronary Arteries: 20 Breath-Hold vs. 3D Respiratory-Gated Acquisition"; J. of Compo Assisted Tomography 19; pp. 56-62 (Jan./Feb. 1995).	<input type="checkbox"/>
	23	HUBER, A. et al. "Navigator Echo-Based Respiratory Gating for Three-Dimensional MR Coronary Angiography: Results from Healthy Volunteers and Patients with Proximal Coronary Artery Stenoses" AJR (July 1999) 173:95-101.	<input type="checkbox"/>
	24	IWASAWA, Tae, et al.; "Normal In-Plane Respiratory Motion of the Bilateral Hemidiaphragms Evaluated By Sequentially Subtracted Fast Magnetic Resonance Images"; Journal of Thoracic Imaging; 1999; Vol. 14, No.2; pp. 130-134.	<input type="checkbox"/>
	25	JOHNSON, L.S. et al.; "Initial Clinical Experience With A Video-Based Patient Positioning System"; Int. J. Radial. Oncol. Biol. Phys. 45; pp. 205-213; (August 1999).	<input type="checkbox"/>

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	26	JOLESZ, Ferenc M.D., et al.; "Image-Guided Procedures And The Operating Room Of The Future"; Radiology; SPL Technical Report #48; May 1997: 204:601-612.	<input type="checkbox"/>
	27	JOSEFSSON, T. et al. "A Flexible High-Precision Video System for Digital Recording of Motor Acts Through Lightweight Reflex Markers" Computer Methods & Programs in Biomedicine (1996) 49:119-129.	<input type="checkbox"/>
	28	KACHELRIESS, Marc, et al.; "Electrocardiogram-correlated Image Reconstruction From Subsecond Spiral Computed Tomography Scans Of The Heart"; Med. Phys. 25(12); December 1998; pp. 2417-2431.	<input type="checkbox"/>
	29	KEATLEY, E. et al.; "Computer Automated Diaphragm Motion Quantification in a Fluoroscopic Movie"; Dept. of Medical Physics, Memorial Sloan-Kettering Cancer Center, New York; 3 pps. 1749-1751	<input type="checkbox"/>
	30	KIM, W.S., et al.; "Extension of Cardiac and Respiratory Motion Cycles by Use of Projection Data and Its Applications to NMR Imaging"; Magnetic Resonance in Medicine 13; 1990; pp. 25-37.	<input type="checkbox"/>
	31	KORIN, H.W. et al.; "Respiratory Kinematics Of The Upper Abdominal Organs: A Quantitative Study"; Magn. Rason. Med. 23; pp. 172-178 (January 1992).	<input type="checkbox"/>
	32	KUBO, H.D. et al.; "Breathing-Synchronized Radiotherapy Program at the University of California Davis Cancer Center"; Med. Phys. 27(2); February 2000; pp. 346-353.	<input type="checkbox"/>
	33	KUBO, H.D. et al.; "Compatibility Of Varian 2100C Gated Operations With Enhanced Dynamic Wedge And IMRT Dose Delivery"; Med. Phys. 27; pp. 1732-1738; (August 2000).	<input type="checkbox"/>
	34	KUBO, H.D. et al.; "Potential and Role of a Prototype Amorphous Silicon Array Electronic Portal Imaging Device in Breathing Synchronized Radiotherapy"; Med. Phys. 26(11); November 1999; pp. 2410-2414.	<input type="checkbox"/>
	35	KUBO, H.D. et al.; "Respiration Gated Radiotherapy Treatment: A Technical Study"; Phys. Med. Biol. 41; pp. 83-91; (1996).	<input type="checkbox"/>
	36	KUTCHER, G.J. et al.; "Control, Correction, and Modeling Of Setup Errors and Organ Motion", Semin. Radiat. Oncol. 5; pp. 134-145 (April 1995).	<input type="checkbox"/>

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	37	LEE, M.W. AND I. COHEN "Human Body Tracking with Auxiliary Measurements" IEEE International Workshop on Analysis and Modeling of Faces and Gestures (2003) 8 pages, located at http://iris.usc.edu/~icohen/projects/human/body/index.htm .	<input type="checkbox"/>
	38	LETHIMONNIER, F. et al.; "Three-Dimensional Coronary Artery MR Imaging Using Prospective Real-Time Respiratory DE Navigator and Linear Phase Shift Processing: Comparison With Conventional Coronary Angiography", Magn. Reson. Immaaine 17; DO. 1111-1120; (1999)	<input type="checkbox"/>
	39	LEWIS, C.E. et al.; "Comparison Of Respiratory Triggering And Gating Techniques For The Removal Of Respiratory Artifacts In MR Imaging"; Radiology 160; pp. 803-810; (September 1986).	<input type="checkbox"/>
	40	LI, D. et al.; "Coronary Arteries: Three-dimensional MR Imaging With Retrospective Respiratory Gating"; Radiology; December 1996; Vol. 201; No.3.; pp. 857-863.	<input type="checkbox"/>
	41	LIEBERMAN, J.M. et al. "Gated Magnetic Resonance Imaging of the Normal Diseased Heart: Radiology (Aug. 1984) 152:465-470.	<input type="checkbox"/>
	42	LOPRESTI, B.J. et al. "Implementation and Performance of an Optical Motion Tracking System for High Resolution Brain PET Imaging" IEEE Transactions on Nuclear Science (December, 1999) 46(6):2059-2067.	<input type="checkbox"/>
	43	LUKER, Gary D., et al.; "Ghosting of Pulmonary Nodules With Respiratory Motion: Comparison of Helical and ConvenHonal CT Using an In Vitro Pediatric Model"; AJR:167; November 1996; pp. 1189-1193.	<input type="checkbox"/>
	44	MAGERAS, G. et al.; "Initial Clinical Evaluation Of A Respiratory Gating Radiotherapy System"; 22nd Annual EMBS International Conference, Chicago. IL.; pp. 2124-2127; (July 23-28, 2000).	<input type="checkbox"/>
	45	MAGERAS, G.S. et al.; "Respiratory Motion-Induced Treatment Uncertainties"; Patras Medical Physics 99- VI International Conference On Medical Physics, Monduzzi Editore; pp. 33-39; (September 1999).	<input type="checkbox"/>
	46	MAGERAS, G.S., "Interventional Strategies For Reducing Respiratory-Induced Motion In External Beam Therapy"; The Use of Computers In Radiation Therapy XIIIth International Conference, Heidelberg, Germany; pp. 514-516; (May 2000).	<input type="checkbox"/>
	47	MAH, D. et al.; "Technical Aspects Of The Deep Inspiration Breath Hold Technique In The Treatment Of Thoracic Cancer"; Int. J. Radiat. Oncol., Bioi., Phys. 48; pp. 1175-1185; (November 2000).	<input type="checkbox"/>

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48	MAH, K. et al.; "Time Varying Dose Due To Respiratory Motion During Radiation Therapy Of The Thorax"; Proceedings of the Eighth Int'l Conference on the Use of Computers In Radiation Therapy, Toronto, Canada; July 9-12, 1984; 00. 294-298.	<input type="checkbox"/>
49	MALONE, S. et al.; "Respiratory-Induced Prostate Motion: Quantification And Characterization", Int. J. Radial. Oncal., Bioi., Phys. 48; pp. 105-109; (August 2000).	<input type="checkbox"/>
50	MANKE, D. et al. "Model Evaluation and Calibration for Prospective Respiratory Motion Correction in Coronary MR Angiography Based on 3-D Image Registration" IEEE Transactions on Medical Imaging (Sept. 2002) 21(9):1132-1141	<input type="checkbox"/>

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